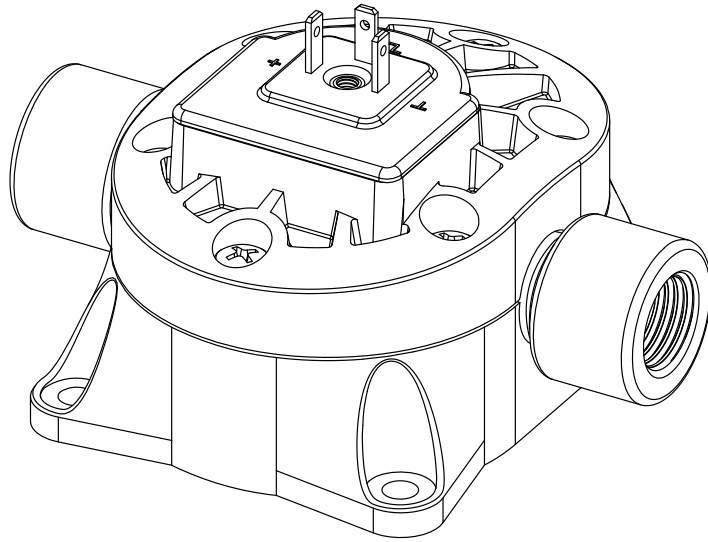


# DATA SHEET



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## FUEP

Bass Instruments, Fusun 59, Umraniye-34776 Istanbul / Turkey  
Phone +90 (216) 660 01 63 Fax +90 (216) 660 01 65  
[www.bass.com.tr](http://www.bass.com.tr)

# General Description

The **FUEP** flowmeter is specifically suitable for fluid flow rate measurement of highly viscose media such as syrup, oil or detergent concentrates. Thanks to its special design and the epicycloid wheels, the **FUEP** flowmeter is highly precise and allows extremely accurate flow measurement with minimal pressure loss.

**Specific applications:** Highly viscous media, high temperatures, high flow rates with low pressure loss and good chemical resistance.

## Approvals / Standards

EN55014-1:00+A1:01+A2:02, EN61000-6-3:01+A11:04, IEC61000-6-3:06(ed.2.0), EN61000-3-2:06, IEC61000-3-2:05(ed.3.0), EN61000-3-3:95+A1:01+A2:05, IEC61000-3-3:94+A1:01+A2:05(Cons.ed 1.2), EN55014-2:97-A1:01, EN61000-6-1:01, IEC61000-6-1:05(ed.2)



## Material:

Housing: PBT 35% GF (Arnite)  
 Bearing pin: Inox 1.4435  
 Aluminium oxide on request  
 Nozzle: Ø 7.0mm like housing  
 O-ring: FPM (Viton)  
 EPDM on request  
 Turbine: PEEK  
 Magnets: NdFeB (Neodym)  
 (not contact with the medium)  
 Screw: PT-screw  
 (Phillips cross recessed)

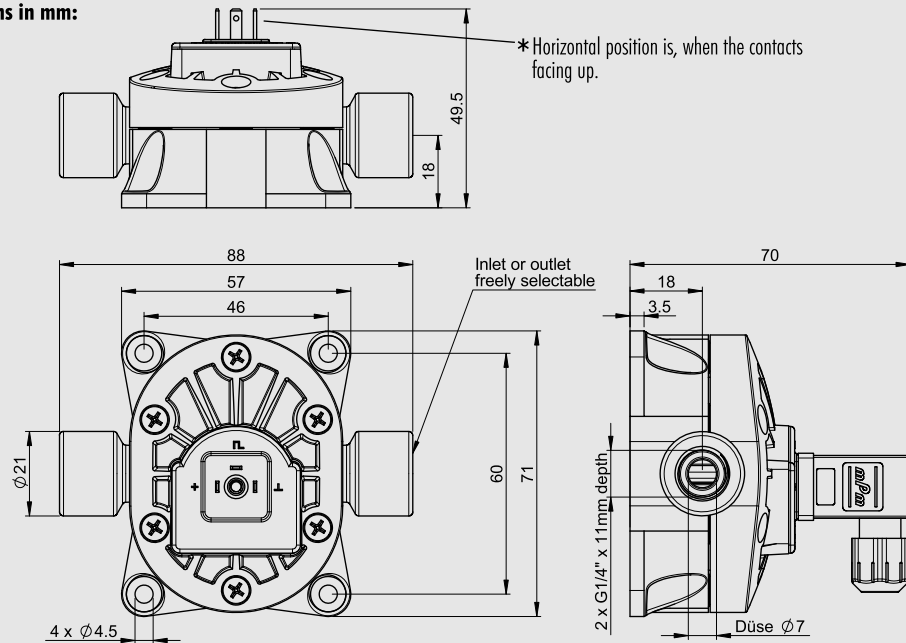
## Technical data:

Flow rate: 0.06 - 16 l/min  
 Continuous operation: < 500 rpm  
 Measuring accuracy: +/- 1.0%  
 Repetition: < +/- 0.25%  
 Temperature range: -10°C to +65°C  
 14°F to 149°F  
 Pressure range: 10 bar at 20°C  
 145 psi /68°F  
 Mounting position: Horizontal \*  
 Nozzle size: Ø 7.0 mm  
 Viscosity range: approx. 5 - 8000 centistokes

## Electrical connection ratings:

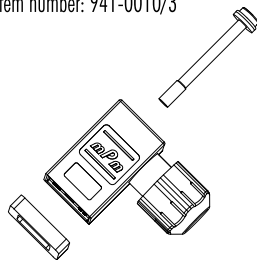
Power supply: +3.8 to +24 VDC  
 Consumption: < 8 mA  
 Signal connection: Open collector NPN  
 Signal voltage: 0 VDC GND  
 (saturation < 0.7 V)  
 Signal load: max. 20 mA  
 Leakage current: max. 10 µA  
 Connections: 3Pin- AMP 2.8 x 0.8 mm  
 Signal: Square-wave output  
 Duty Cycle: ~ 50%

## Dimensions in mm:



## Included in the delivery:

3-pin valve connector  
 Item number: 941-0010/3



## RESISTANCE

Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation and the flowmeter are resistant to the medium itself (see Material)!

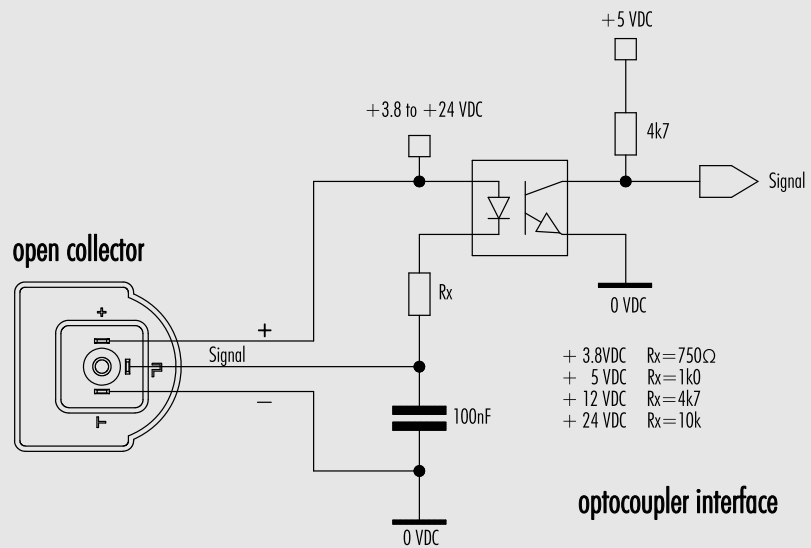
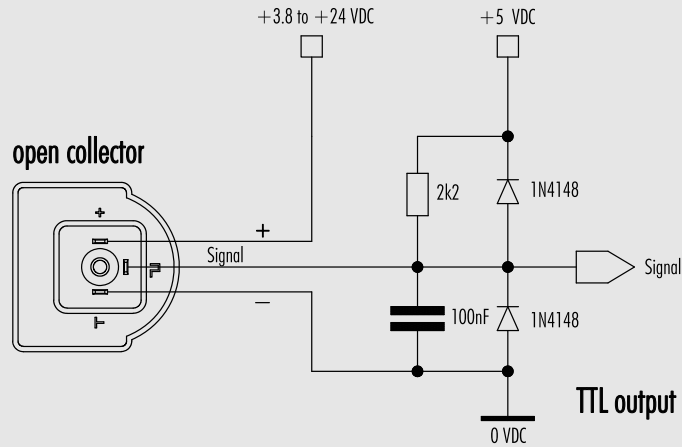
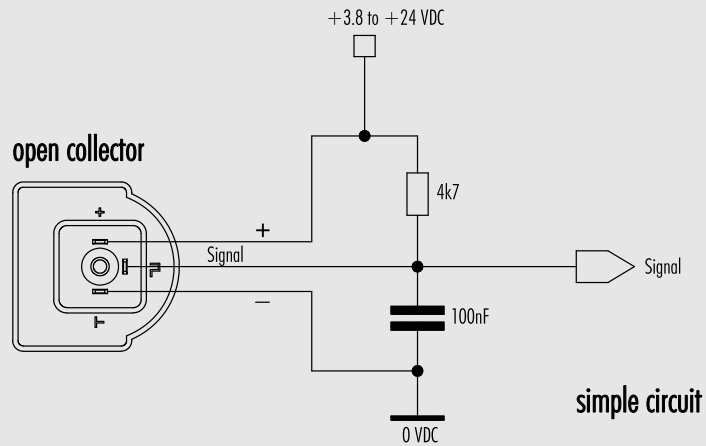
## ELECTRONIC

**BASS** electronic circuitry is always designed for operation with **BASS** flowmeters. Please note the following if connecting to other electronic circuitry:

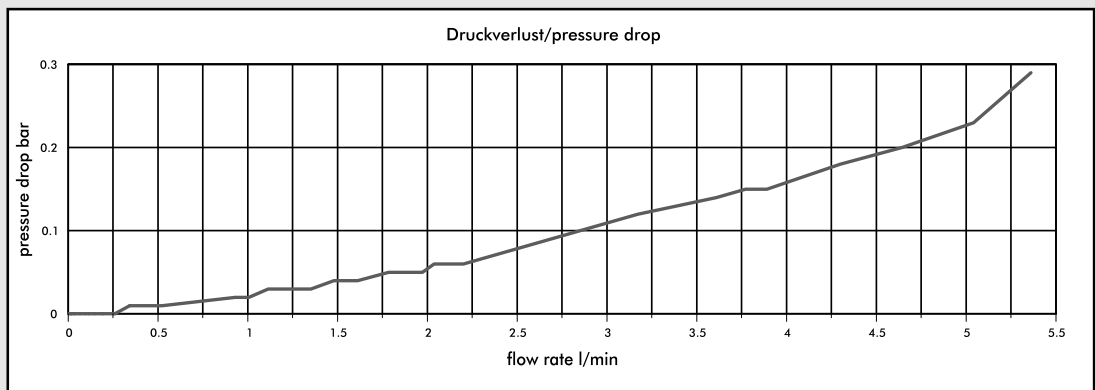
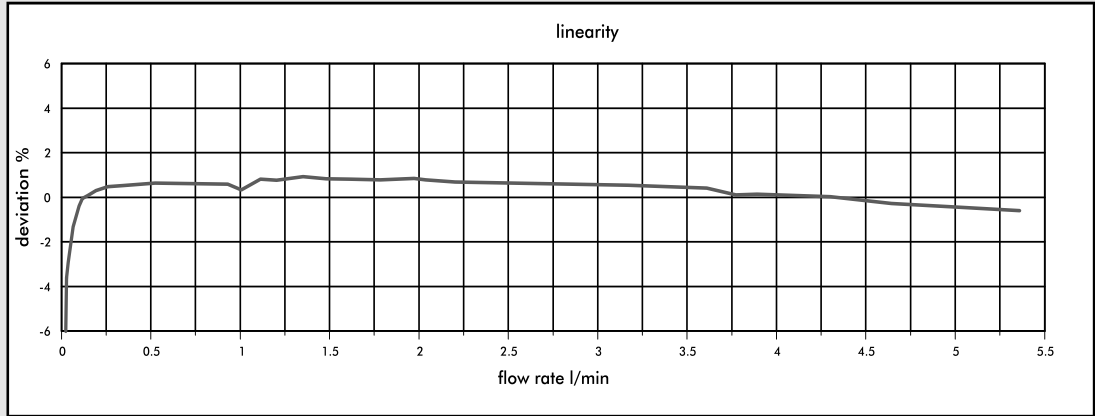
- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (non-actuated)
- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

**Bass Instruments**  
 "the fluid control expert"

# Interface Connection: Examples Open Collector



# Measurement Curve FUEP Ø7.00mm



Medium for these linearity and pressure loss curves: Cola syrup (approx. 24 centistokes).

Nozzle size	Pulses/litre	g/pulse	min. flow rate in [litres/min] at linear start	max. flow rate in [litres/min]	Pressure loss in [bar]
Ø 7.00 mm	462	2.1	0.06	5.35	0.29

## MEASUREMENT TIPS

- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate intervals
- Avoid electrical current peaks
- Incorrect cabling of power supply +, signal and ground will destroy the flowmeter
- Do not mechanically load electrical contacts
- Avoid moisture on the electrical contacts
- Avoid stray pick-up via the cable (Do not lay cables in parallel with high current loads)

**The values specified must be considered as approximate values.**

**The number of pulses per litre may differ depending on medium and installation.**

**We recommend to calibrate the number of pulses per litre in line with the complete installation.**